Prompt Engineering as an Important Emerging Skill for Medical Professionals: Tutorial

Abstract

Prompt engineering is a relatively new field of research that refers to the practice of designing, refining, and implementing prompts or instructions that guide the output of large language models (LLMs) to help in various tasks. With the emergence of LLMs, the most popular one being ChatGPT that has attracted the attention of over a 100 million users in only 2 months, artificial intelligence (AI), especially generative AI, has become accessible for the masses. This is an unprecedented paradigm shift not only because of the use of AI becoming more widespread but also due to the possible implications of LLMs in health care. As more patients and medical professionals use AI-based tools, LLMs being the most popular representatives of that group, it seems inevitable to address the challenge to improve this skill. This paper summarizes the current state of research about prompt engineering and, at the same time, aims at providing practical recommendations for the wide range of health care professionals to improve their interactions with LLMs.